

# Work Order ID 136306

September 01, 2015 2:00:03 PM

**\*136306\***

To ship Sept 14 50122964

Page 1

Item ID: D135-692-011

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Bearpaw

Stop

**\*NS2\***

Start Date: 9/1/2015 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 9/11/2015 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals:

Process Plan: SH

Date:

**120150901**

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D3049

Rev A1

SEP 15 2015

100

Document Control

0.00

27

MLJ

**\*100\***

DOCUMENT CONTROL

DC

Memo

0.00

DAS  
02  
9-89

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels per PPP D135-692-011 CHG002

150

Pick Kit

0.00

27

9-89

DAS  
6  
9-89

**\*150\***

Packaging

Memo

0.00

SEP 03 2015

Packaging

160

QC4- 100% Inspect kits for completeness

0.00

**\*160\***

QC

Memo

0.00

DAS  
02  
9-89

Quality Control

SEP 15 2015

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                      | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Step #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MRB (QSI042) Approval                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Completed By                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Lead hand / Supervisor Approval Verification                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | QC / QA Coordinator Approval                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Environment <input type="checkbox"/><br>Design <input type="checkbox"/><br>Doc/Data <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Pre <input type="checkbox"/><br>Material <input type="checkbox"/><br>Internal Transport <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/><br>LOA <input type="checkbox"/><br>Substation <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/><br>Misidentified <input type="checkbox"/> | No Re-verification <input type="checkbox"/><br>Operator <input type="checkbox"/><br>Offset/Setup <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Training <input type="checkbox"/><br>Use for Testing <input type="checkbox"/><br>Poor Information <input type="checkbox"/><br>Rushing <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Past Due <input type="checkbox"/> | Pressure/Forced <input type="checkbox"/><br>Bending <input type="checkbox"/><br>Centre Not Concentric <input type="checkbox"/><br>Cracks <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave <input type="checkbox"/><br>Cuffs <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Heat Treat <input type="checkbox"/><br>Wave/Twist in Tube <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Temperature/Cure <input type="checkbox"/><br>Set-up <input type="checkbox"/><br>BOM/Route <input type="checkbox"/><br>Broken/Damage/Defect <input type="checkbox"/><br>Inspection Incomplete/Unqualified <input type="checkbox"/><br>Contamination <input type="checkbox"/><br>Countersink <input type="checkbox"/><br>Cut Too Short <input type="checkbox"/><br>Instructions Incomplete/Unclear <input type="checkbox"/><br>Drill Holes <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set <input type="checkbox"/><br>Misabeled <input type="checkbox"/><br>Fit/Function <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/><br>Outside Dimensions <input type="checkbox"/><br>Over/Under tolerance <input type="checkbox"/><br>Part Incorrect <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Part Moved <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Misread <input type="checkbox"/><br>Turning Sequence <input type="checkbox"/> |
| OTHER : <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Work Order ID 136306****\*136306\***

Page 2

September 01, 2015 2:00:03 PM

Item ID: D135-692-011

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Bearpaw

Stop **\*NS2\***

Start Date: 9/1/2015 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 9/11/2015 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                               | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp    |
|--------------------------------|--------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|-------------------|
| 170                            |                                                        | 0.00                 |         |        |              |               |               |                  | DAS<br>02<br>0-89 |
| <b>*170*</b>                   | Packaging                                              |                      |         |        |              |               |               |                  |                   |
| Packaging                      | Memo                                                   | 0.00                 |         |        |              |               |               |                  |                   |
| Packaging                      | Identify and pack for shipping as per PPP D135-692-011 |                      |         |        |              |               |               |                  |                   |
|                                | Location: <u>013</u>                                   |                      |         |        |              |               |               |                  | SEP 15 2015       |
|                                | PPP Rev: _____                                         |                      |         |        |              |               |               |                  |                   |
| 180                            | QC21- Final Inspection - Work Order Release            | 0.00                 |         |        |              |               |               |                  |                   |
| <b>*180*</b>                   |                                                        |                      |         |        |              |               |               |                  |                   |
| QC                             | Memo                                                   | 0.00                 |         |        |              |               |               |                  |                   |
| Quality Control                |                                                        |                      |         |        |              |               |               |                  |                   |

MLJ SEP 16 2015MLJ SEP 16 2015

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                      | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Step #: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MRB (QSI042) Approval                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Completed By                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | QC / QA Coordinator Approval                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Environment <input type="checkbox"/><br>Design <input type="checkbox"/><br>Doc/Data <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Pre <input type="checkbox"/><br>Material <input type="checkbox"/><br>Internal Transport <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/><br>LOA <input type="checkbox"/><br>Substation <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/><br>Misidentified <input type="checkbox"/> | No Re-verification <input type="checkbox"/><br>Operator <input type="checkbox"/><br>Offset/Setup <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Training <input type="checkbox"/><br>Use for Testing <input type="checkbox"/><br>Poor Information <input type="checkbox"/><br>Rushing <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Past Due <input type="checkbox"/> | Pressure/Forced <input type="checkbox"/><br>Bending <input type="checkbox"/><br>Centre Not Concentric <input type="checkbox"/><br>Cracks <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave <input type="checkbox"/><br>Cuffs <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Heat Treat <input type="checkbox"/><br>Wave/Twist in Tube <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Temperature/Cure <input type="checkbox"/><br>Set-up <input type="checkbox"/><br>BOM/Route <input type="checkbox"/><br>Broken/Damage/Defect <input type="checkbox"/><br>Inspection Incomplete/Unqualified <input type="checkbox"/><br>Contamination <input type="checkbox"/><br>Countersink <input type="checkbox"/><br>Cut Too Short <input type="checkbox"/><br>Instructions Incomplete/Unclear <input type="checkbox"/><br>Drill Holes <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set <input type="checkbox"/><br>Misabeled <input type="checkbox"/><br>Fit/Function <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/><br>Outside Dimensions <input type="checkbox"/><br>Over/Under tolerance <input type="checkbox"/><br>Part Incorrect <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Part Moved <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Misread <input type="checkbox"/><br>Turning Sequence <input type="checkbox"/> |
| OTHER : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |

# Picklist Print

September 01, 2015 2:00:09 PM

Page 1

Work Order ID: 136306

Parent Item: D135-692-011

Parent Item Name: Bearpaw

**\*136306\***

**\*D135-692-011\***

Start Date: 9/1/2015

Required Date: 9/11/2015

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:C04.02.17Blank size changed, Tolerance added Step  
3KJ/JLM IPP REV:E AS PER DSI  
9592/9587 REV A JLM VERIFIED BY:EC  
IPP Rev:D 08-04-16 Added Step 2 JLM Verified By:EC

| Component Item ID/<br>Item Name | Replacement<br>Item ID     | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status      |
|---------------------------------|----------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|-------------|
| AN4-13A                         |                            | Purchased     | No          |                     |                  |                 | Each               | 283.0000       | 8           | 16           |               | 27<br>9-89     | DAS<br>9-89 |
| <b>*AN4-13A*</b>                | <b>DAS<br/>02<br/>9-89</b> |               |             |                     |                  |                 |                    |                | <b>**</b>   |              |               |                |             |

Location Loc Qty Loc Code

FG 20

122808 20

ST344 263

m132551 263

D2182B  
**\*D2182B\***  
Rubber Cushion - Black (\$Per Foot)

**DAS  
02  
9-89**

Manufactured No

160 f 653.8768 2 4

**\*\***

27  
9-89

DAS  
9-89

Location Loc Qty Loc Code

ST411 653.8768

130427 303.8768

135093 350

(D2182B060) Cut 4 at 6.00"

D2274

**\*D2274\***

Radius Block

**DAS  
02  
9-89**

Manufactured No

160 Each 19.0000 8 16

**\*\***

134217

DAS  
6  
9-89

Location Loc Qty Loc Code

FG 12

86855 12

ST 7

110264 7

SEP 03 2015

# Picklist Print

September 01, 2015 2:00:09 PM

Page 2

Work Order ID: 136306

**\*136306\***

Parent Item: D135-692-011

**\*D135-692-011\***

Parent Item Name: Bearpaw

Start Date: 9/1/2015

Required Date: 9/11/2015

Start Qty: 2.00

Required Qty: 2.00

D2519

Manufactured No

160

Each

38.0000

4

8

**\*D2519\*** DAS

Clamp

02

9-89

**\*\***

**DAS**

27

9-89



Location

Loc Qty

Loc Code

ST542

38

101510

6

133908

8

134298

22

99606

2

8

D2529

Manufactured No

160

Each

282.0000

8

16

**\*D2529\***

Washer

68-6

20

DAS

**\*\***

**DAS**

27

9-89



Location

Loc Qty

Loc Code

ST007

181

131945

181

ST008

101

128950

1

135846

100

16

SEP 03 2015

D3049-1

Manufactured No

160

Each

0.0000

2

4

**\*D3049-1\*** DAS

Bearpaw

02

9-89

**\*\***

B184896

4

SMA



# Picklist Print

September 01, 2015 2:00:10 PM

Work Order ID: 136306

**\*136306\***

Parent Item: D135-692-011

**\*D135-692-011\***

Parent Item Name: Bearpaw

Start Date: 9/1/2015

Required Date: 9/11/2015

Start Qty: 2.00

Required Qty: 2.00

MS21042L4

Purchased

No

160

Each

2,274.000

8

16

**\*MS21042L4\***

Locknut

68-6  
20  
SVD

★★

27  
9-89



Location

Loc Qty

Loc Code

FP001

2

m124231

2

GA

122

m127813

122

ST260a

170

m130799

56

m131803

6

m132262

108

ST305

1980

m128300

8

m130388

7

m130922

97

m131618

12

m132123

56

m132382

1800

16

NAS1149D0463J

Purchased

No

160

Each

3,330.000

8

16

**\*NAS1149D0463J\***

WASHER

NAS  
02  
9-89

★★

27  
9-89



Location

Loc Qty

Loc Code

GA

41

M129390

41

ST260a

1000

M133077

1000

ST269

2289

M129682

86

M130799

371

M132035

723

M132317

125

M132677

984

16

# Picklist Print

September 01, 2015 2:00:10 PM

Page 4

Work Order ID: 136306

**\*136306\***

Parent Item: D135-692-011

**\*D135-692-011\***

Parent Item Name: Bearpaw

Start Date: 9/1/2015

Required Date: 9/11/2015

Start Qty: 2.00

Required Qty: 2.00

QS100-M24S

Purchased

No

160

Each

20.0000

4

8

**\*QS100-M24S\***

**DAS  
02  
9-89**

**\*\***

**SEP 03 2015**

Clamp

Location

Loc Qty

Loc Code

ST544

20

m132342

20

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|                  |                |                                                   |                        |
|------------------|----------------|---------------------------------------------------|------------------------|
| DESIGN<br>RF     | DRAWN BY<br>RF | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |                        |
| CHECKED<br>#     | APPROVED<br>#  | DRAWING NO.<br>D3049                              | REV. A<br>SHEET 1 OF 2 |
| DATE<br>01.10.18 |                | TITLE<br>BEARPAW                                  | SCALE<br>1:7           |
| A                | 01.10.18       | NEW ISSUE                                         |                        |
| AI               | # 03.01.13     | Ø 0.93 WAS Ø 0.75                                 |                        |

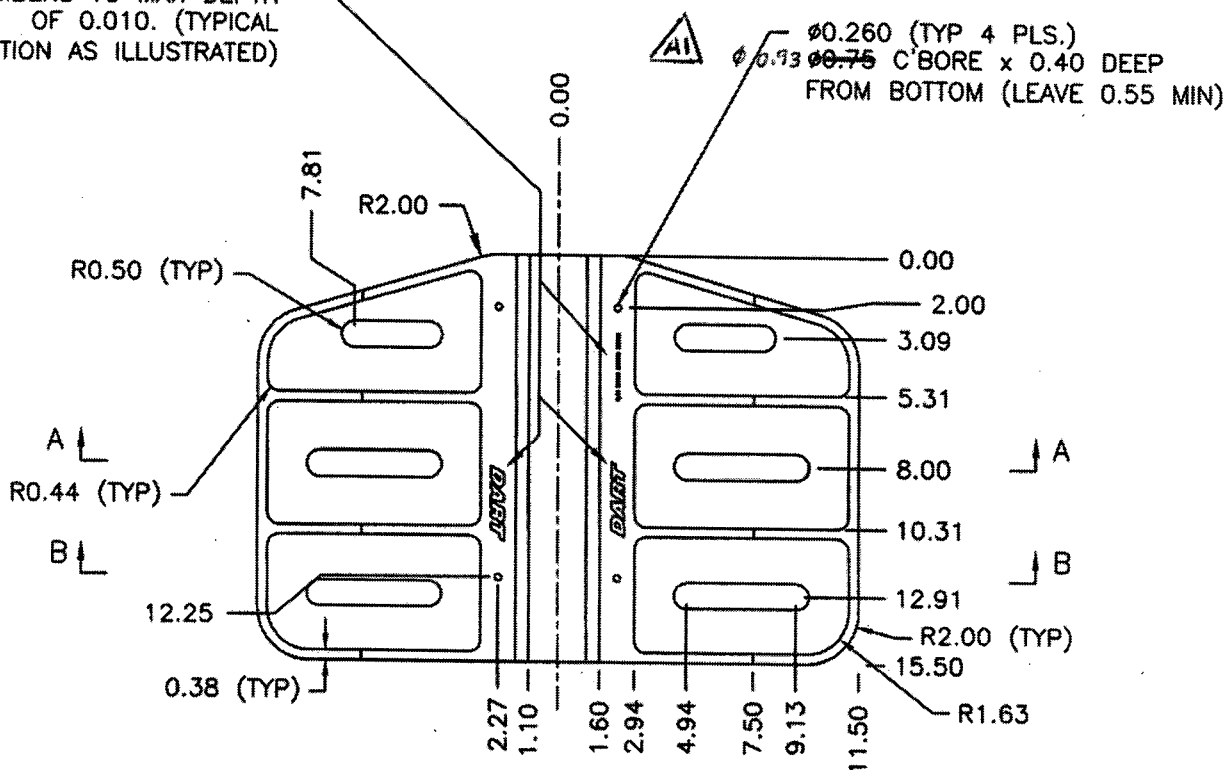
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ENGRAVE DART LOGO TO  
MAX DEPTH OF 0.012.  
ENGRAVE PART AND BATCH  
NUMBERS TO MAX DEPTH  
OF 0.010. (TYPICAL  
LOCATION AS ILLUSTRATED)



D3049-1 BEARPAW

NOTES:

- 1) BEARPAW IS SYMMETRIC ABOUT CENTER LINE
- 2) MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689, 1.00" THICK (MACHINE TO 0.950)

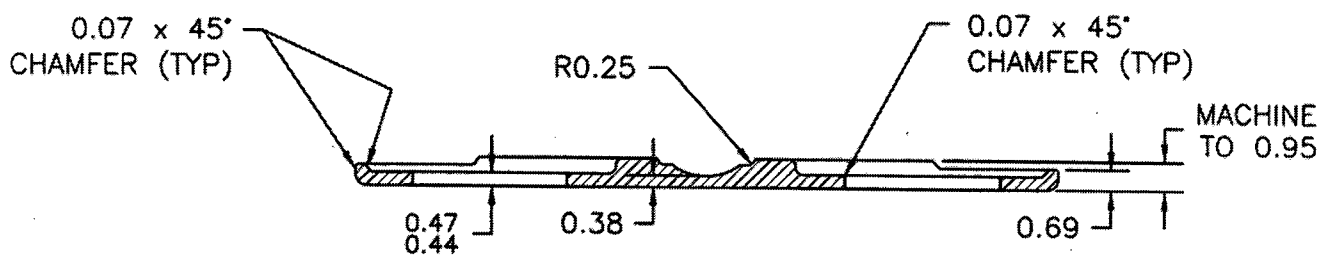
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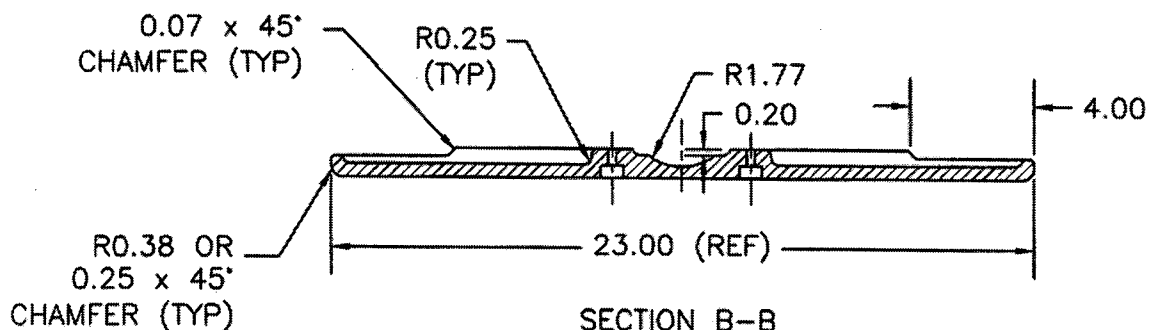


|                  |                |                                                   |                        |
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| DESIGN<br>RF     | DRAWN BY<br>RF | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |                        |
| CHECKED<br>#     | APPROVED<br>#  | DRAWING NO.<br>D3049                              | REV. A<br>SHEET 2 OF 2 |
| DATE<br>01.10.18 |                | TITLE<br>BEARPAW                                  | SCALE<br>1:6           |

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SECTION A-A



SECTION B-B

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**REFERENCE ONLY****DAS  
02  
9-89**

5. Additional AN960JD416 washers may be installed under the nuts to ensure 1.5-4 threads in safety on the bolts. Although not generally necessary, it is also acceptable to replace the AN4-15A bolts with longer or shorter AN4 bolts, if required.
6. Lower the aircraft

**4. WEIGHT AND BALANCE**

| Installation                                                 | Weight             | LATERAL         |                       | LONGITUDINAL       |                         |
|--------------------------------------------------------------|--------------------|-----------------|-----------------------|--------------------|-------------------------|
|                                                              |                    | Arm             | Moment                | Arm                | Moment                  |
| D135-692-011 Bearpaw Installation<br>on model EC135 aircraft | 11.8 lb<br>5.36 kg | 0.0 in<br>0.0 m | 0.0 lb-kG<br>0.0 m-kG | 199.7 in<br>5.07 m | 2356 in-lb<br>27.2 m-kG |

**5. PARTS LIST**

| Qty      | Part Number         | Description                 |
|----------|---------------------|-----------------------------|
| <b>X</b> | <b>D135-692-011</b> | <b>BEARPAW INSTALLATION</b> |
| 4        | D2182B060           | RUBBER CUSHION              |
| 8        | D2274               | RADIUS BLOCK                |
| 2        | D3049-1             | BEARPAW                     |
| 8        | D2529               | WASHER                      |
| 4        | D2519               | CLAMP                       |
| 8        | AN4-15A             | BOLT                        |
| 8        | AN960JD416          | WASHERS                     |
| 8        | MS21042L4           | NUT (OR MS21042-4)          |
| 4        | QS100M24S           | CLAMP                       |

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D135-692 REV. A AND  
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D135-692 REV. 0

**REFERENCE ONLY**

REF. FAA STC: SR01042SE

DAS

02

9-80

## PURPOSE:

The purpose of this service instruction is to replace the AN4-15A Bolt with a shorter AN4-13A Bolt to facilitate installation.

## CHANGE:

### 5. PARTS LIST (IIN-D135-692)

### 32.4 PARTS LIST (ICA-D135-692)

| Qty | Part Number  | Description          |
|-----|--------------|----------------------|
| X   | D135-692-011 | BEARPAW INSTALLATION |

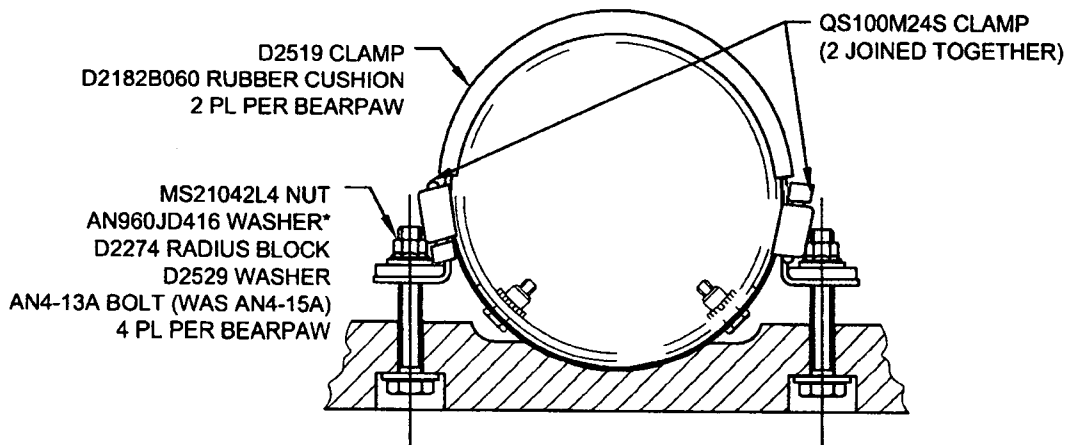
## IS:

|   |         |      |
|---|---------|------|
| 8 | AN4-13A | BOLT |
|---|---------|------|

## WAS:

|   |         |      |
|---|---------|------|
| 8 | AN4-15A | BOLT |
|---|---------|------|

Figure 2 of IIN-D135-692 and Figure 32-2 of ICA-D135-692 are amended as follows:



**Figure 2 - Bearpaw Installation (IIN-D135-692)**  
**Figure 32-2: Bearpaw Installation (ICA-D135-692)**

|                                                                                                                                                                                                                                     |           |                                             |              |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------|--------------|----------|
| A                                                                                                                                                                                                                                   | NEW ISSUE | (REF: PAR10-56)                             | MB           | 11.12.13 |
| REV.                                                                                                                                                                                                                                |           | DESCRIPTION                                 | BY           | DATE     |
| DESIGN                                                                                                                                                                                                                              |           | <b>DART AEROSPACE USA, INC</b>              |              |          |
| DRAWN                                                                                                                                                                                                                               |           | <b>KENT, WA</b>                             |              |          |
| CHECKED                                                                                                                                                                                                                             |           | DRAWING NO.                                 | REV. A       |          |
| MFG. APPR.                                                                                                                                                                                                                          | N/A       | DSI 9587                                    | SHEET 1 OF 1 |          |
| APPROVED                                                                                                                                                                                                                            |           | TITLE                                       | SCALE        |          |
| DE APPR.                                                                                                                                                                                                                            |           | BOLT CHANGE                                 | NTS          |          |
| DATE                                                                                                                                                                                                                                | 11.12.13  | COPYRIGHT © 2011 BY DART AEROSPACE USA, INC |              |          |
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